

The diagram illustrates a laser scanning system for a lithographic mask. The system components and their functions are as follows:

- LA (Laser):** The light source.
- Ex (Exposure System):** Contains lenses **IL** (illumination lens), **IN** (intermediate lens), and **CO** (condenser lens).
- 1 (Mirror):** A rotating mirror that directs the beam.
- PL (Polygonal Mirror):** A mirror that scans the beam across the mask.
- MA (Microscope Assembly):** A lens that focuses the beam onto the mask.
- PB (Pinhole):** A small aperture that filters the beam.
- MT (Mask):** The first lithographic mask.
- PM (Photomask):** The mask being scanned.
- WT (Wafer):** The substrate being scanned.
- PW (Photomask):** The mask being scanned.
- BP (Base Plate):** The base of the stage.
- IF (Image Feedback):** A sensor that monitors the beam position.
- MA (Microscope Assembly):** A second lens used for alignment.
- M1, M2 (Mirrors):** Mirrors used for alignment.
- C (Camera):** A camera used for alignment.
- W (Wafer):** The substrate being scanned.
- P1, P2 (Points):** Points on the wafer.
- Y, X (Coordinates):** A coordinate system with **Y** as the vertical axis and **X** as the horizontal axis.